

Cherepovets Water-Efficiency/Tariff Reform Program

Location: City of Cherepovets
Type: Tariff reform and water efficiency
Size: 1,100 water meters, 24 km of pipes, three pumping stations, new treatment facility
Funding: Total: US\$1,600,000 — all from increased water tariffs
Objective: To improve the financial situation of the utility, enabling it to invest in system improvements.
Duration: 1998–2000
Scale: Urban

Summary

Cherepovets, a city with a typical Russian income profile, has shown how tariff reform can help rehabilitate a city's infrastructure, and in so doing, build its economy and enhance the quality of life for its citizens. The city's program demonstrated that prices could be raised to the point of full-cost recovery (plus profits needed to make investments). The city was able to accomplish this while increasing the overall level of payments and without significant political opposition. The Cherepovets example has demonstrated that the public will support and pay for increased tariffs, despite opinions to the contrary.

In-Country Principles That Attracted Nondonor Financing

- Capacity building and informed decision making
- Public participation in, and support of, sustainable development

The tariff redesign was accomplished in a manner that built consensus within the city government and educated the population on the need to increase prices (thus reducing pub-



lic opposition). Part of this effort was a public awareness campaign, including educating children on water conservation through games in schools.

A key factor that made the reform possible was educating the general public about the need for raising prices and assuring people that the tariffs would be used to improve the quality of heating and water services. Creating a working group that included members of different city departments and the general public was critical for successful reform. The process for increasing prices was transparent and based on consensus.

The following principles also contributed to the ability to finance system improvements with no outside funding: (1) a sound and rational tariff policy, which included the introduction of a dual tariff (network charge plus actual consumption payments) that improved and stabilized the financial situation of municipal utilities; (2) a tariff restructuring that substituted subsidies for all citizens with subsidies only for the truly needy; (3) gradual improvement of the market environment in the municipal housing and public utility services sector through tenders for renovation of public buildings and for technical maintenance of residential buildings; and (4) development of private contractors, who, incidentally, are expanding their activities to include reducing the amount of heat wasted in area schools.

Financing

Total investment costs were about US\$1,600,000. With no outside money, the City of Cherepovets raised water tariffs not only enough to cover costs, which would have been a success in itself, but also enough to generate revenues for investment. Investments funded by the increased tariffs include:

- A new water treatment facility (investment of 40.5 million rubles)
- Three new, modern pumping stations (1.5 million rubles)
- Twenty-four kilometers of old, leaking pipes replaced with new pipes (1.6 million rubles)
- More than 1,100 water meters installed in buildings city-wide, enabling consumption-based billing (investment of 6.4 million rubles)..

The Project

The City of Cherepovets, in Northwest Russia, has implemented a wide-ranging tariff reform and water-efficiency

program that has proven to be a model for Russia. The city took two very innovative steps. First, it rationalized subsidies on the basis of income. As a result, the poorest people pay no more than 10% of their income to utility payments, and those who can afford to pay 100% receive no subsidies from the municipality. Second, the city used the additional revenue to implement a major water-efficiency investment program, which invests in both the water supply system and in end user buildings. The results of these efforts include the following.

The city raised water tariffs enough to cover costs and to invest in water-efficiency projects. These projects included a new water treatment facility, 3 new pumping stations, the replacement of 24 km of old, leaking pipes with new pipes, and the installation of more than 1,100 water meters in buildings all over the city so that water can be billed on the basis of consumption.

The city reduced leaks in the supply network from 25 to 10% in four years. It also reduced the amount of electricity required to pump 1 m³ of water through the system by 12%.

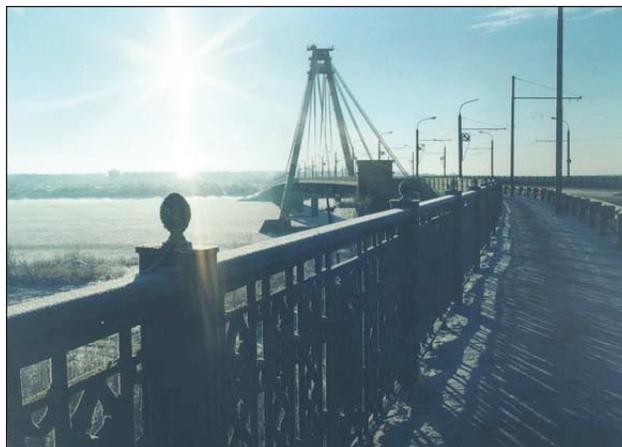
Before the initiative, 75% of the network's pipes were more than 25 years old (intended lifetime is 20 years). Today, only 25% of the pipes are more than 25 years old.

Technical Data

The technologies used included water meters, new water pipes, and new water treatment technologies.

Performance Data

The project has produced revenues that the city has invested to provide 3 new pumping stations, a water treatment station, and 1,110 water meters in buildings across the city.



The tariff reform and subsequent investment have reduced the amount of electricity required for water pumping by 12% per cubic meter pumped.

Participants and Roles

The Cherepovets Tariff Design Group, which consisted of managers from several key city departments, relevant committees of the city council, and members from the general public, was responsible for the tariff program and water-efficiency investments.

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